



Construction

Submersible motor pumps for deep wells of 4" (DN 100 mm), and 6" (DN 150 mm).

Impellers: - radial impellers 4SD 31,41,45,5,75 - 6SD 7,9,10,15
- mixed flow impellers 4SD 8,10,15 - 6SD 18,19,20

Bocca: screwed connection ISO 228

Delivery casing with built-in non-return valve.

Applications

For water supply.
For civil and industrial applications.
For fire fighting applications.
For irrigation.

Operating conditions

Liquid temperature up to a 35 °C (25 °C with rewindable motor).
Max. sand quantity into the water: 25 g/m³.
Max. starts per hour: 20 at regular intervals.
Continuous duty.

Standard motor

2-pole induction motor, 50 Hz (n = 2900 rpm).
Resin impregnated winding.
Sized for connection to the pumps according to NEMA Standards.
Standard voltages:
- single-phase 220 V - up to 2,2 kW.
- three-phase 220 V - up to 30 kW;
380-415 V - from 0,37 kW up to 30 kW;
220/380 V - for 6" motors from 4 up to 30 kW;
380/660 V - for 6" motors from 4 up to 30 kW.
- other voltages and frequencies available on request.
Insulation - class B for 4" motors.
- class F for 6" motors.
Protection IP 58.

Cable	Motor	Section	Length
4"	up to 1,5 kW	4 x 1,5 mm ²	1,5 m
4"	2,2 ÷ 5,5 kW	4 x 1,5 mm ²	2,5 m
6"	up to 22 kW	4 x 4 mm ²	4 m
6"	30 kW	4 x 8,3 mm ²	4 m

Materials

Components	Part Nr.	4SD	6SD
External casing	14.02	Cr-Ni steel	AISI 304
Stage casing	25.02	Polycarbonate (Lexan 144 R)	PPO - GF 20 (Noryl)
Diffuser	26.00		
Impeller	28.00		
Wear ring		Cr-Ni steel	AISI 304
Shaft	64.00	Cr steel	AISI 430 F
Delivery casing	12.01	Bronze G-Cu Sn 10 UNI 7013	
Suction lantern	32.02	Cr-Ni steel AISI 304	Bronze G-Cu Sn 10 UNI 7013
Bearing bush	12.03-12.30	Thermoplastic	Rubber
Strainer	15.50	Cr-Ni steel	AISI 304
Screws		Cr-Ni steel	AISI 304
External frame		Cr-Ni steel	AISI 304
Shaft		Cr-Ni steel	AISI 303
Thrust bearing		Oscillation pads	
Bearing bush		Graphite	
External frame		-	Cr-Ni steel AISI 304
Shaft		-	Cr steel AISI 420 Hardened and tempered
Thrust bearing		-	Oscillation pads
Bearing bush		-	Graphite

Rewindable motor (on request)

2-pole induction motor, 50 Hz (n = 2900 rpm).
With water wetted winding in rewindable execution.
Sized for connection to the pumps according to NEMA Standards.
Standard voltages:
- three-phase 220 V ± 5%.
380 V ± 5%.
220/380 V ± 5%.
380/660 V ± 5%.
- other voltages and frequencies available on request.
Insulation class Y.
Protection IP 58.

Cable	Motor	Section	Length
6"	4 ÷ 30 kW	4 x 6 mm ²	3,5 m

Designation

4 SD M 31 / 40

Ø of the well in inches _____

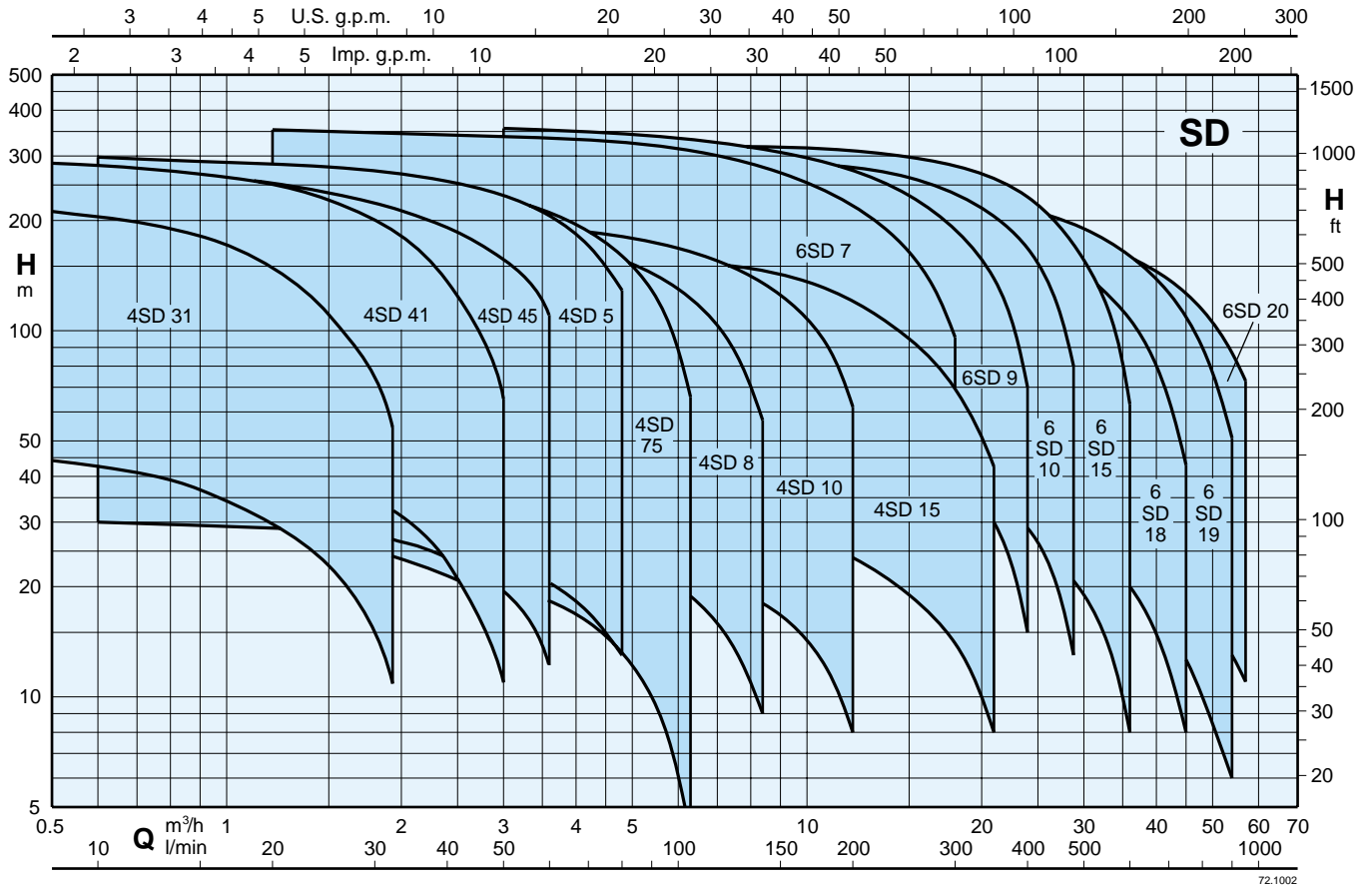
Series _____

Single-phase motor (up to max. 2,2 kW) _____

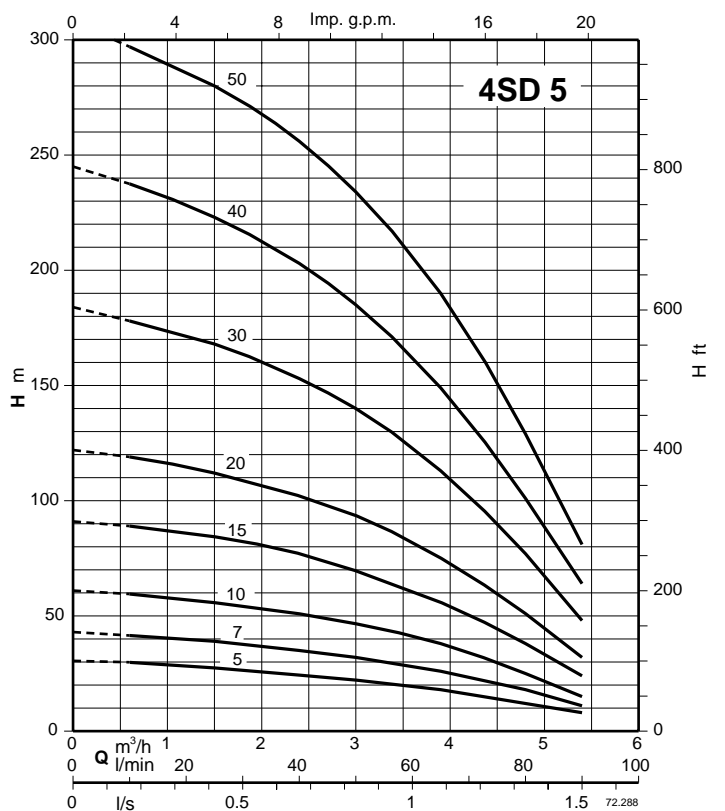
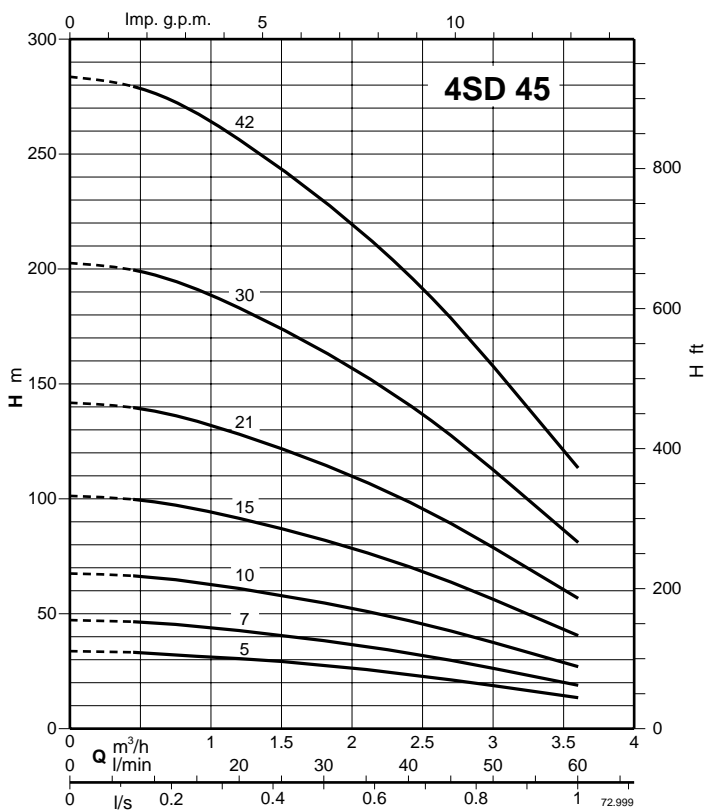
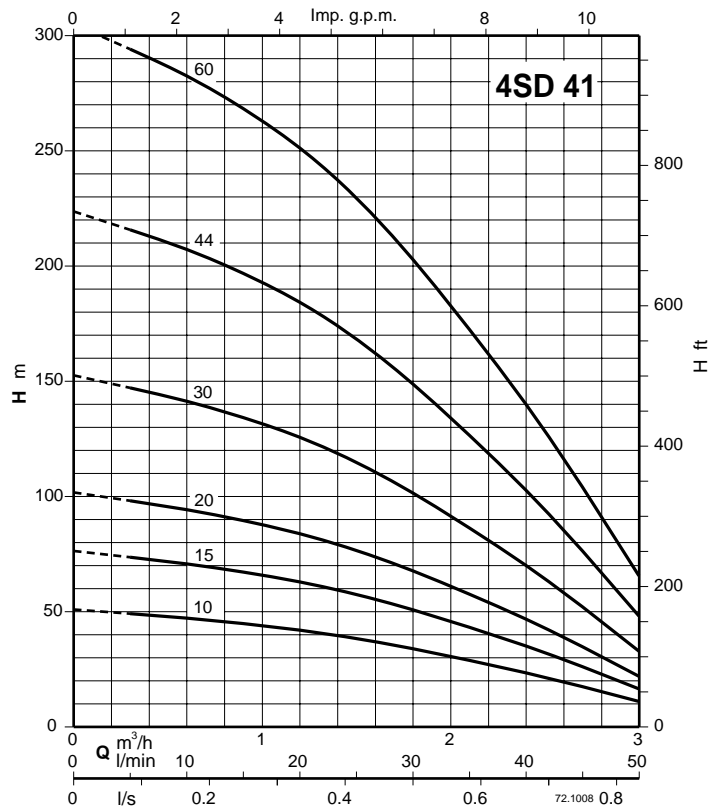
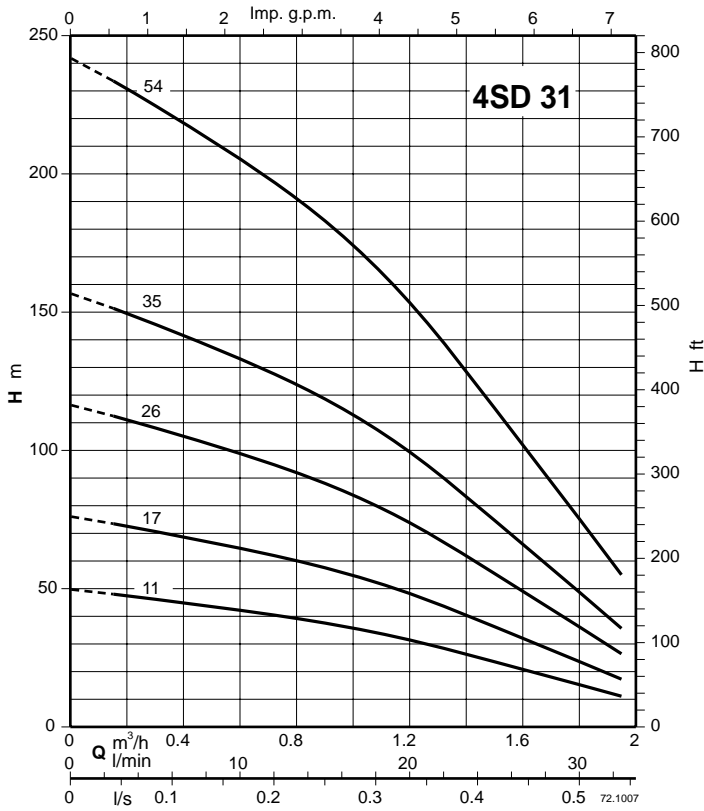
Stage identification _____

Number of stages _____

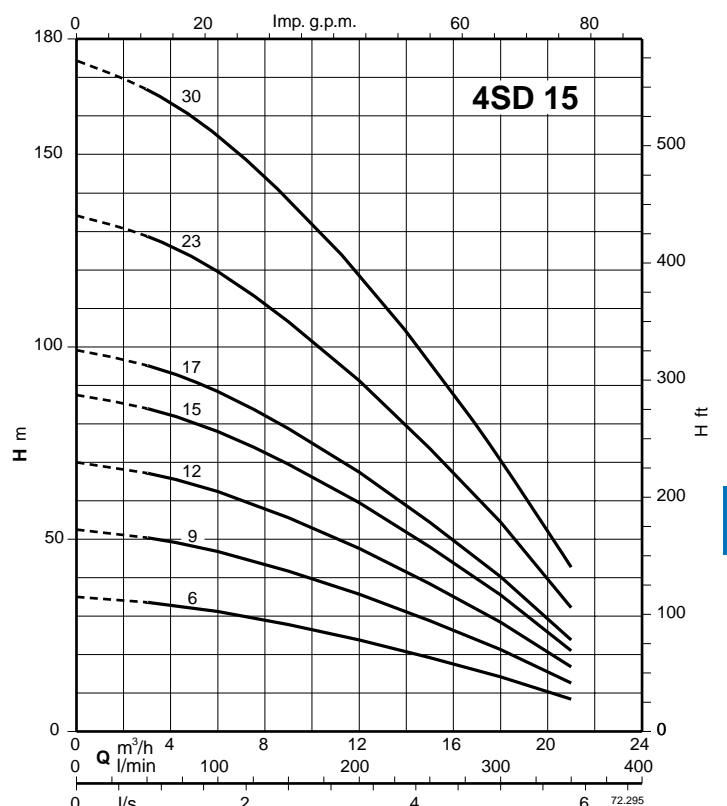
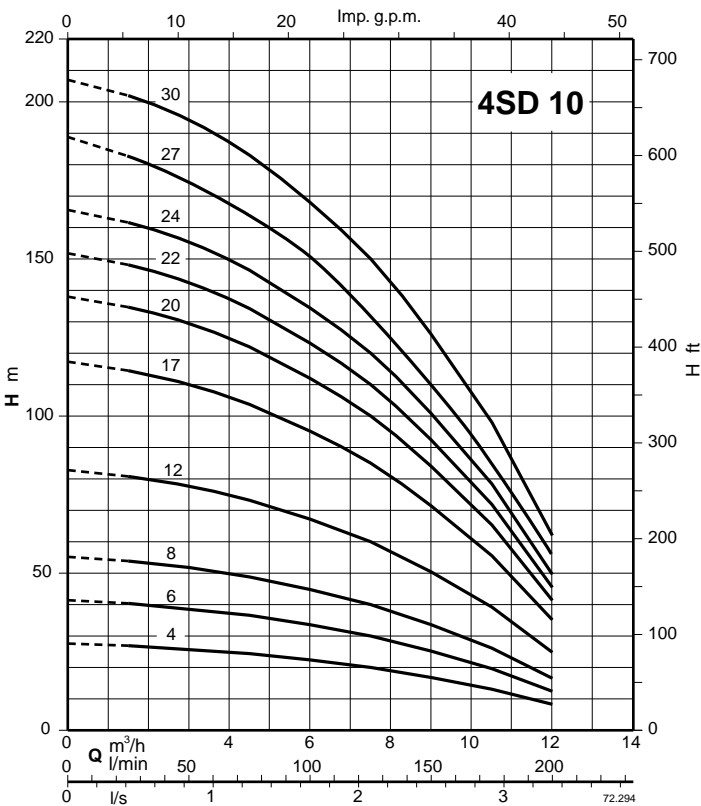
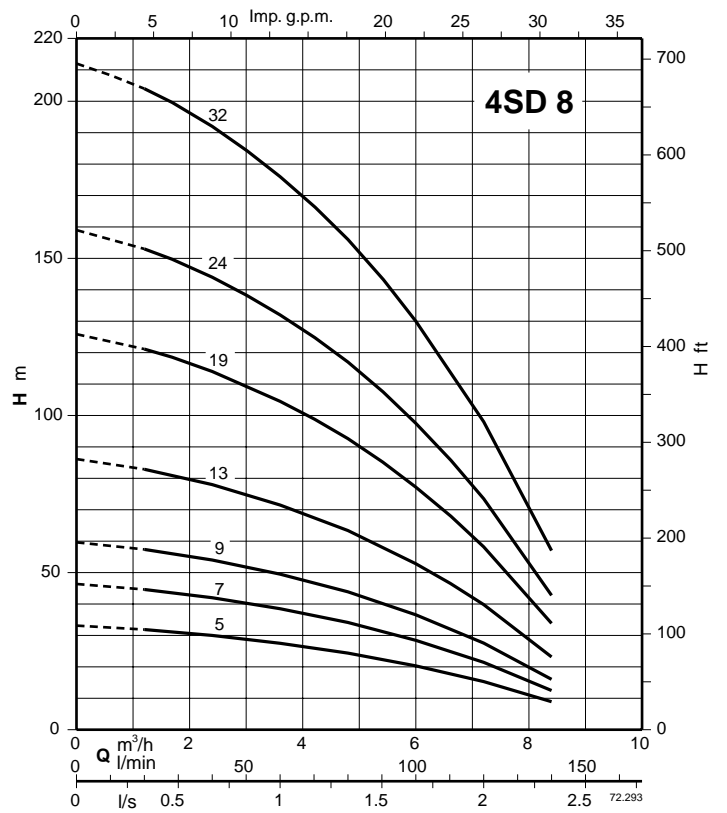
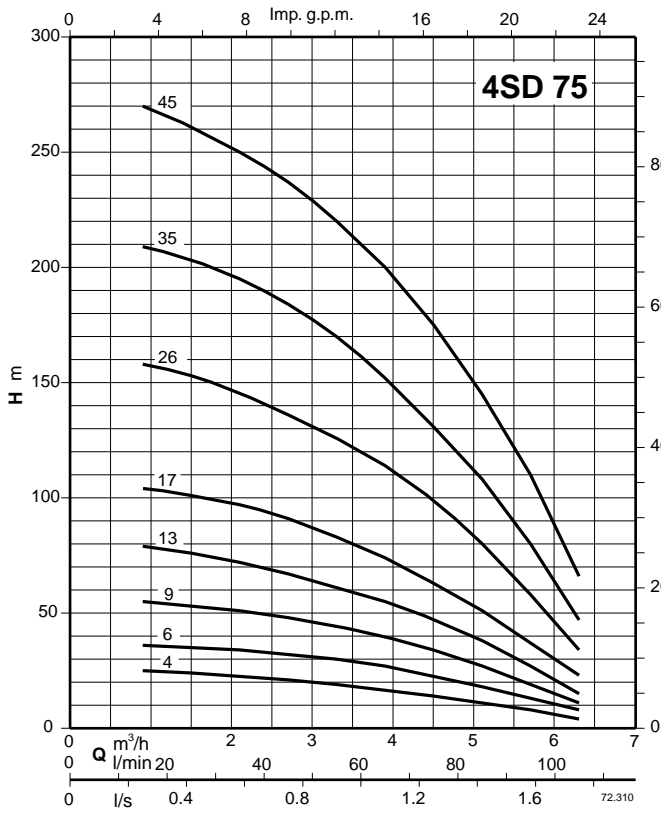
Coverage chart $n \approx 2900$ rpm



Characteristic curves $n \approx 2900$ rpm



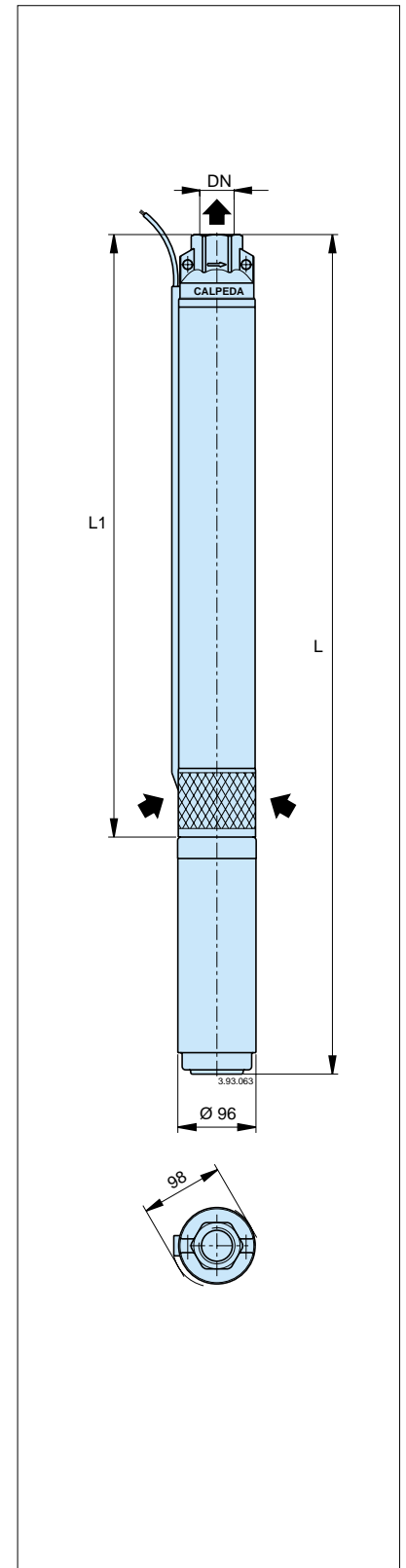
Characteristic curves $n \approx 2900$ rpm



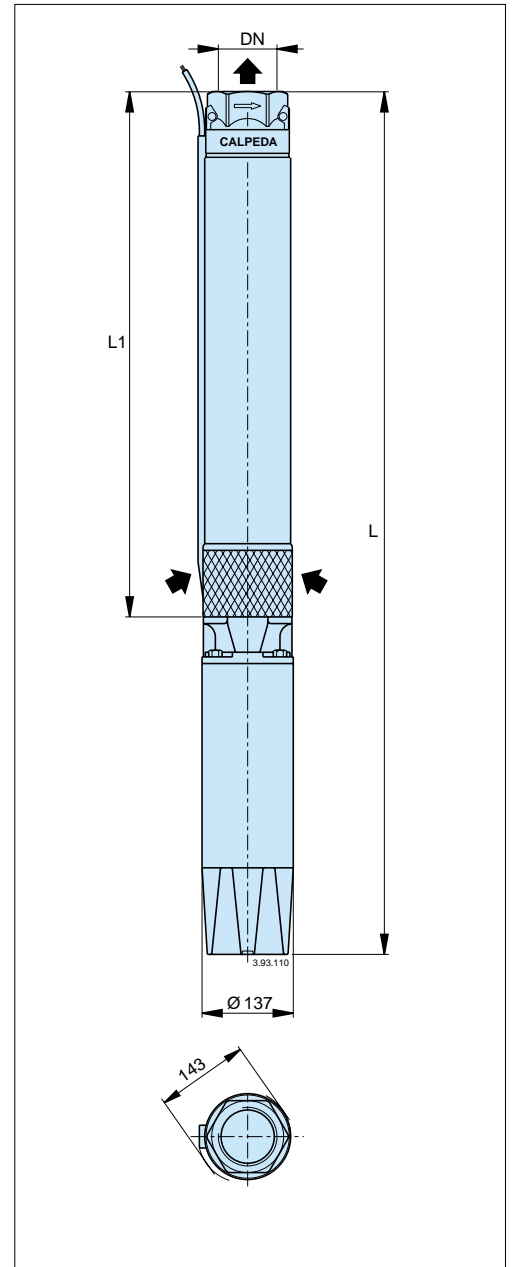
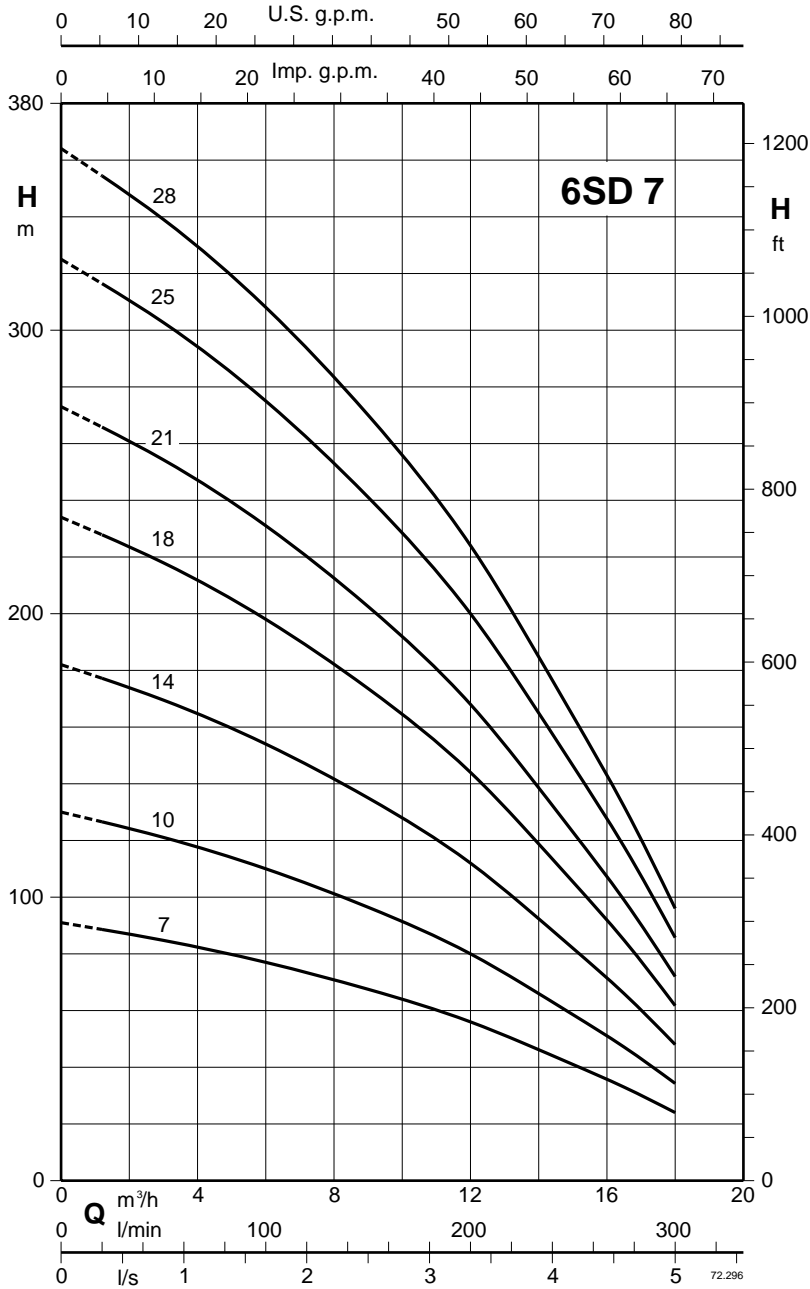
Dimensions and weights

3 ~	P ₂ kW	DN ISO 228	L mm	L ₁ mm	kg
4SD 31/11N	0,37	G 1 1/4	696	473	11,4
4SD 31/17N	0,37		764	591	12,4
4SD 31/26N	0,55		1010	768	14,7
4SD 31/35N	0,75		1214	943	17,5
4SD 31/54N	1,1		1660	1362	22
4SD 41/10N	0,37	G 1 1/4	676	453	11,2
4SD 41/15N	0,55		794	552	12,9
4SD 41/20N	0,75		921	650	15,1
4SD 41/30N	1,1		1145	847	17,9
4SD 41/44N	1,5		1447	1120	21,5
4SD 41/60N	2,2	1836	1480	25,8	
4SD 45/5N	0,37	G 1 1/4	623	400	10,8
4SD 45/7N	0,55		697	455	12,3
4SD 45/10N	0,75		811	540	14,3
4SD 45/15N	1,1		976	678	16,8
4SD 45/21N	1,5		1173	846	19,4
4SD 45/30N	2,2	1454	1098	23,6	
4SD 45/42N	3	1857	1434	29,4	
4SD 5/5N	0,37	G 1 1/4	623	400	10,8
4SD 5/7N	0,55		697	455	12,2
4SD 5/10N	0,75		811	540	14,2
4SD 5/15N	1,1		976	678	16,7
4SD 5/20N	1,5		1145	818	19
4SD 5/30N	2,2	1454	1098	23,5	
4SD 5/40N	3	1801	1378	29	
4SD 5/50N	4	2295	1705	39,5	
4SD 75/4N	0,37	G 1 1/4	595	372	10,6
4SD 75/6N	0,55		670	428	12
4SD 75/9N	0,75		784	513	14
4SD 75/13N	1,1		920	623	16,2
4SD 75/17N	1,5		1060	733	17,5
4SD 75/26N	2,2	1344	988	22,5	
4SD 75/35N	3	1658	1235	28	
4SD 75/45N	4	2105	1515	38,2	
4SD 8/5N	0,55	G 2	774	532	12,4
4SD 8/7N	0,75		909	638	14,6
4SD 8/9N	1,1		1041	743	16,9
4SD 8/13N	1,5		1282	955	19,8
4SD 8/19N	2,2		1628	1272	23,9
4SD 8/24N	3	2013	1590	29,2	
4SD 8/32N	4	2605	2015	40,5	
4SD 10/4N	0,75	G 2	751	480	13,3
4SD 10/6N	1,1		883	585	15,4
4SD 10/8N	1,5		1017	690	17,5
4SD 10/12N	2,2		1258	902	20,8
4SD 10/17N	3		1589	1166	25,5
4SD 10/20N	3,7	1932	1380	33,8	
4SD 10/22N	4	2076	1486	35,9	
4SD 10/24N	4	2180	1590	36,7	
4SD 10/27N	5,5	2452	1750	44	
4SD 10/30N	5,5	2612	1908	45	
4SD 15/6N	1,5	G 2	1075	748	17
4SD 15/9N	2,2		1336	980	27,5
4SD 15/12N	3		1637	1214	31
4SD 15/15N	3,7		2069	1517	36,7
4SD 15/17N	4		2263	1673	39,7
4SD 15/23N	5,5	2913	2209	50,5	
4SD 15/30N	7,5	3535	2755	61,2	

1 ~	P ₂ kW	DN ISO 228	L mm	L ₁ mm	kg
4SDM 31/11N	0,37	G 1 1/4	715	473	12,4
4SDM 31/17N	0,37		833	591	13,4
4SDM 31/26N	0,55		1039	768	16,0
4SDM 31/35N	0,75		1241	943	18,7
4SDM 31/54N	1,1		1689	1362	23,3
4SDM 41/10N	0,37	G 1 1/4	695	453	12,2
4SDM 41/15N	0,55		823	552	14,2
4SDM 41/20N	0,75		948	650	16,3
4SDM 41/30N	1,1		1174	847	19,2
4SDM 41/44N	1,5		1476	1120	22,8
4SDM 41/60N	2,2	1940	1480	30,3	
4SDM 45/5N	0,37	G 1 1/4	642	400	11,8
4SDM 45/7N	0,55		726	455	13,6
4SDM 45/10N	0,75		838	540	15,5
4SDM 45/15N	1,1		1005	678	18,1
4SDM 45/21N	1,5		1202	846	20,7
4SDM 45/30N	2,2	1558	1098	28,1	
4SDM 5/5N	0,37	G 1 1/4	642	400	11,8
4SDM 5/7N	0,55		726	455	13,5
4SDM 5/10N	0,75		838	540	15,4
4SDM 5/15N	1,1		1005	678	18
4SDM 5/20N	1,5		1174	818	20,3
4SDM 5/30N	2,2	1558	1098	28	
4SDM 75/4N	0,37	G 1 1/4	614	372	11,6
4SDM 75/6N	0,55		699	428	13,3
4SDM 75/9N	0,75		811	513	15,3
4SDM 75/13N	1,1		950	623	17,4
4SDM 75/17N	1,5		1089	733	19,6
4SDM 75/26N	2,2	1448	988	26,3	
4SDM 8/5N	0,55	G 2	803	532	13,7
4SDM 8/7N	0,75		936	638	15,8
4SDM 8/9N	1,1		1070	743	18,2
4SDM 8/13N	1,5		1311	955	21,1
4SDM 8/19N	2,2		1732	1272	28,4
4SDM 10/4N	0,75	G 2	778	480	14,5
4SDM 10/6N	1,1		912	585	16,7
4SDM 10/8N	1,5		1046	690	18,8
4SDM 10/12N	2,2		1362	902	25,3
4SDM 15/6N	1,5		G 2	1104	748
4SDM 15/9N	2,2	1440		980	32



Characteristic curves, performance $n \approx 2900$ rpm, dimensions and weights



3 ~	400 V (380-415) 50 Hz	P ₂		Q	n ≈ 2900 rpm														
		A	kW		HP	H													
						m	1,2	3	4,5	6	7,5	9	10,5	12	13,5	15	16,5	18	
6SD 7/7	9,3	4	5,5	89	85	81	77	73	68	62	56	49	41	33	24				
6SD 7/10	12,5	5,5	7,5	126	121	116	110	104	96	89	80	70	59	47	34				
6SD 7/14	16	7,5	10	177	170	163	154	145	135	124	112	98	82	66	48				
6SD 7/18	20,7	9,3	12,5	228	218	209	198	186	174	160	144	125	105	85	62				
6SD 7/21	23,3	11	15	266	254	244	231	218	203	186	168	146	123	99	72				
6SD 7/25	31,3	15	20	316	303	290	275	259	241	222	200	174	146	118	86				
6SD 7/28	31,3	15	20	354	339	325	308	290	270	248	224	195	164	132	96				

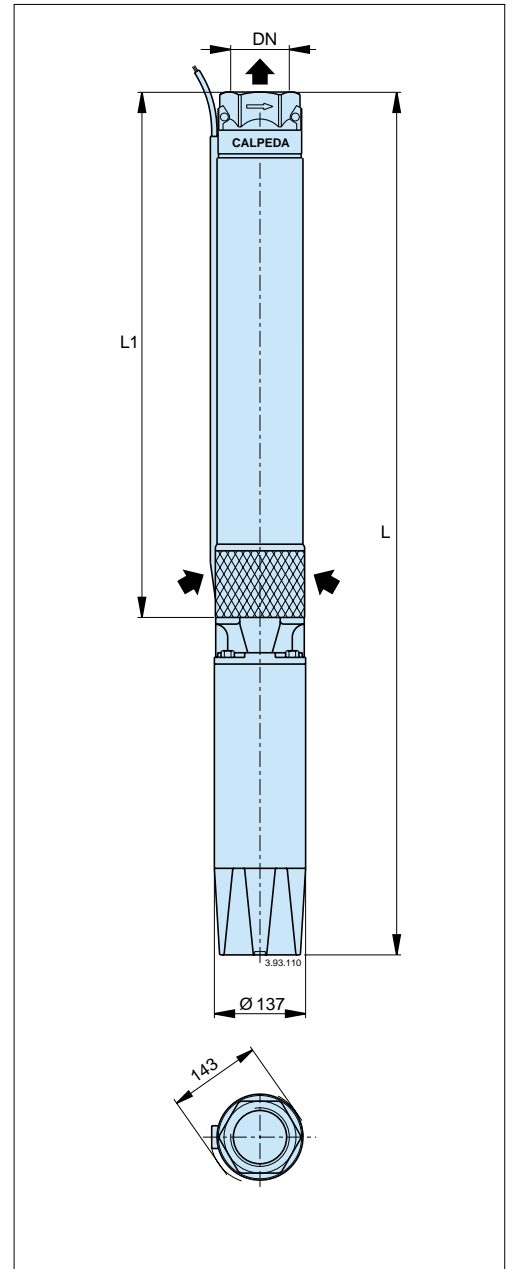
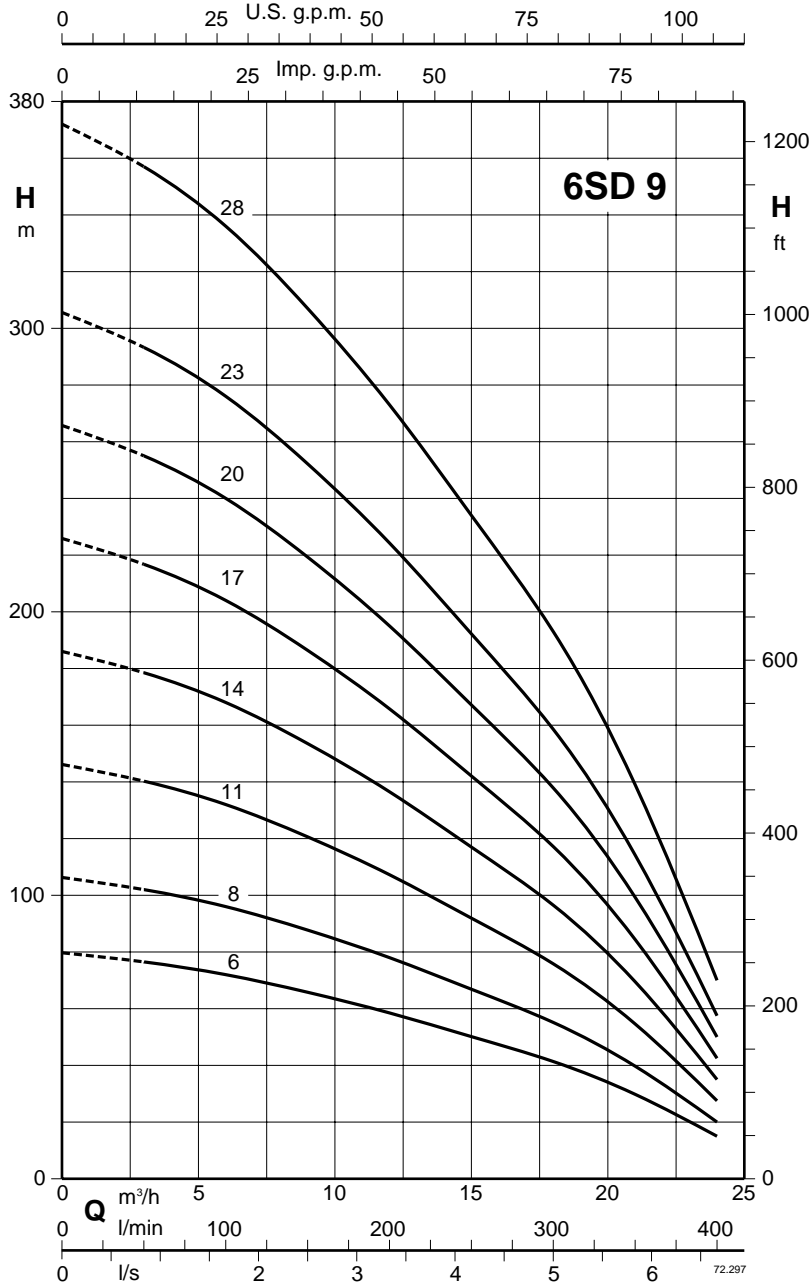
DN	L	L1	
	mm	mm	kg
G 3 ISO 228	1324	744	59
	1517	903	63,9
	1760	1114	71,5
	2083	1404	79
	2274	1563	86
	2550	1774	97
	2709	1933	100

P₂ Rated motor power output

H Total head in m

Tolerances according to ISO 9906, annex A

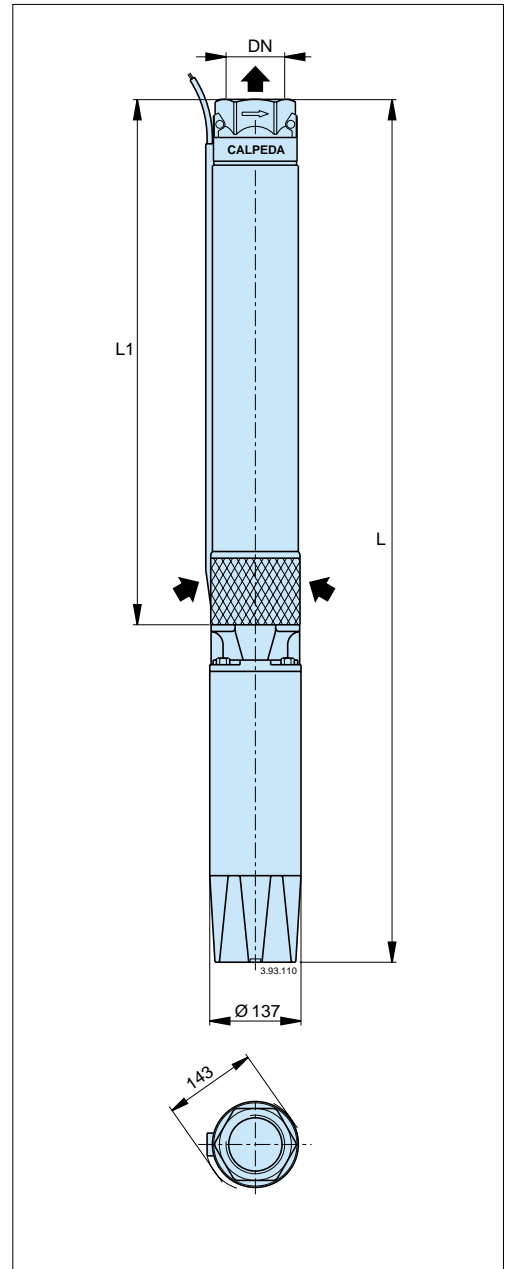
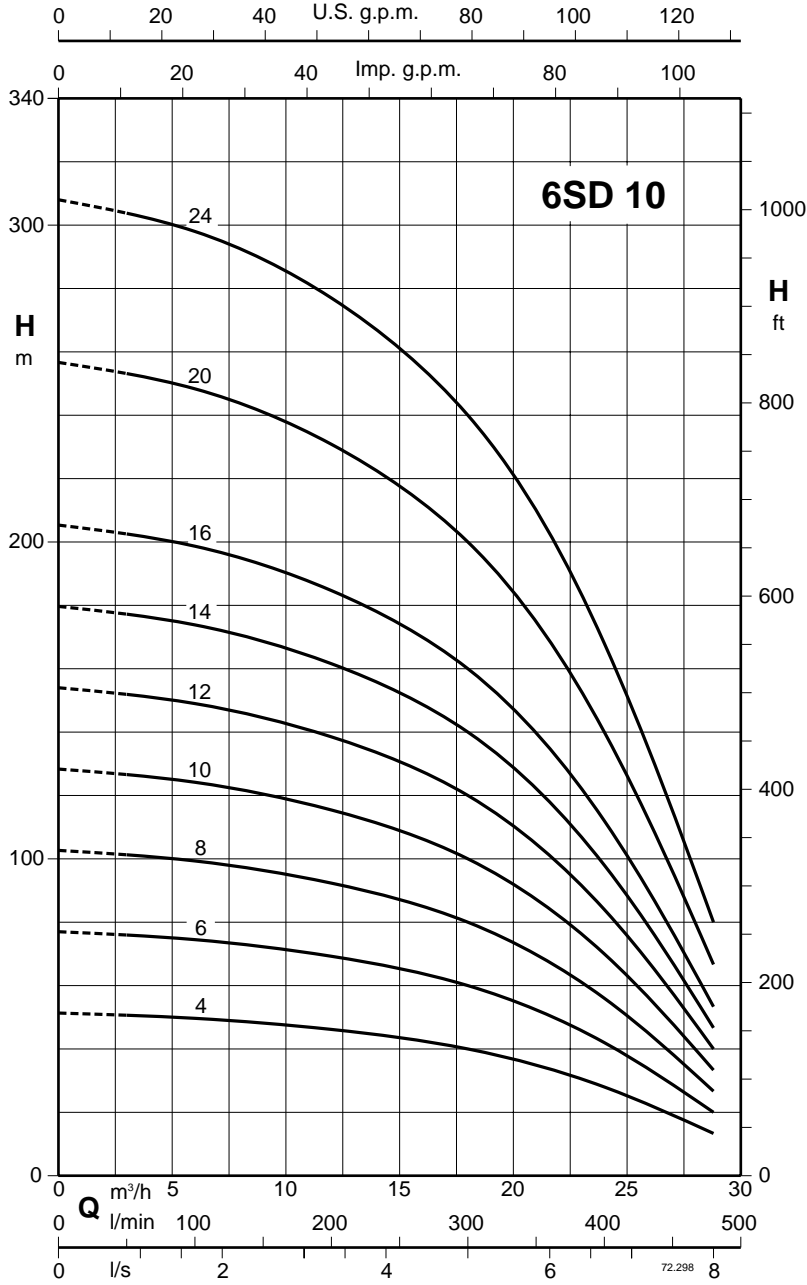
Characteristic curves, performance $n \approx 2900$ rpm, dimensions and weights



3 ~	400 V (380-415) 50 Hz	P ₂		Q	n ≈ 2900 rpm													
					m ³ /h													
					3	6	9	12	15	18	21	24						
	A	kW	HP		l/min													
					50	100	150	200	250	300	350	400						
				H	m													
6SD 9/6	9,3	4	5,5		77	72	66	58	50	41	30	15						
6SD 9/8	12,5	5,5	7,5		102	96	88	78	67	55	40	20						
6SD 9/11	16	7,5	10		140	132	121	107	92	76	55	27						
6SD 9/14	20,7	9,3	12,5		178	168	154	136	117	96	70	35						
6SD 9/17	23,3	11	15		217	204	186	166	142	117	84	43						
6SD 9/20	31,3	15	20		255	240	219	195	167	138	99	50						
6SD 9/23	31,3	15	20		293	276	252	224	192	159	114	58						
6SD 9/28	38,5	18,5	25		357	336	307	273	234	193	139	70						

DN	L	L1	
	mm	mm	kg
G 3 ISO 228	1272	691	58
	1411	797	62
	1602	956	68,5
	1792	1114	74,2
	1984	1273	79,5
	2286	1510	92,5
	2445	1669	95,5
2775	1933	106	

Characteristic curves, performance $n \approx 2900$ rpm, dimensions and weights



3 ~	400 V (380-415) 50 Hz	P2		Q	n ≈ 2900 rpm																					
		A	kW		HP	H																				
						m																				
6SD 10/4	9,3	4	5,5	51	50	48	46	44	40	35	28	20	13													
6SD 10/6	12,5	5,5	7,5	76	75	72	69	66	60	53	42	30	20													
6SD 10/8	16	7,5	10	102	99	96	92	87	80	71	56	39	27													
6SD 10/10	20,7	9,3	12,5	127	124	120	115	109	100	88	70	49	33													
6SD 10/12	23,3	11	15	153	149	144	139	131	120	106	84	59	40													
6SD 10/14	31,3	15	20	178	174	168	161	153	140	124	98	69	47													
6SD 10/16	31,3	15	20	203	199	192	185	175	160	141	112	79	53													
6SD 10/20	38,5	18,5	25	254	248	240	231	218	200	176	140	98	67													
6SD 10/24	45,3	22	30	305	298	288	277	262	240	212	168	118	80													

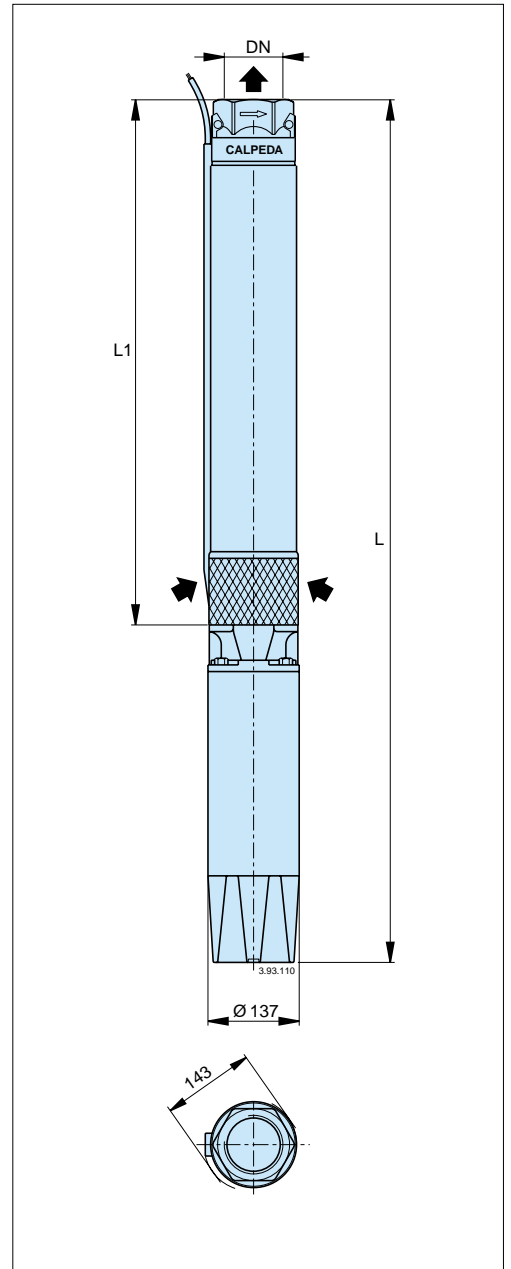
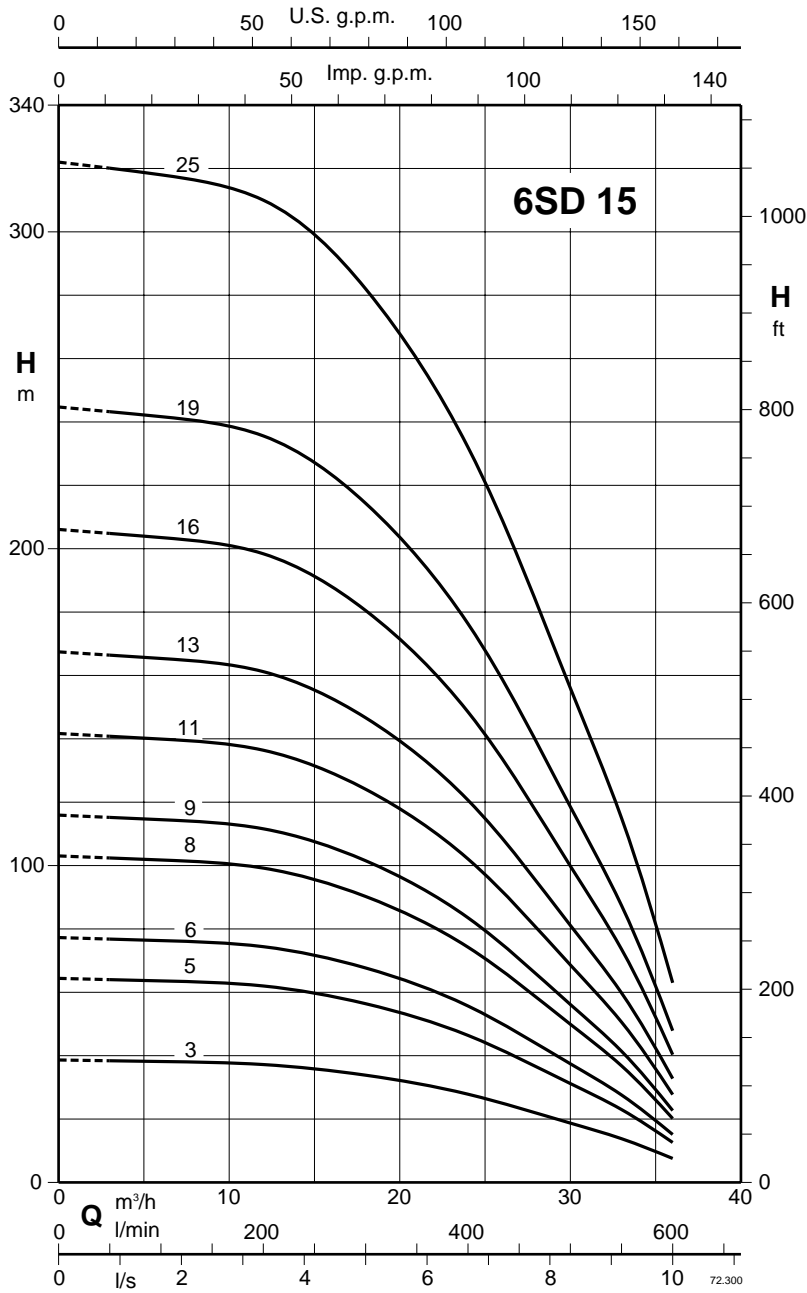
DN	L	L1	
	mm	mm	kg
G 3 ISO 228	1164	584	56
	1304	691	60
	1444	797	65,5
	1582	903	70,2
	1720	1009	74,5
	1890	1114	84
	1996	1220	86
	2352	1510	98
2627	1721	109	

P2 Rated motor power output

H Total head in m

Tolerances according to ISO 9906, annex A

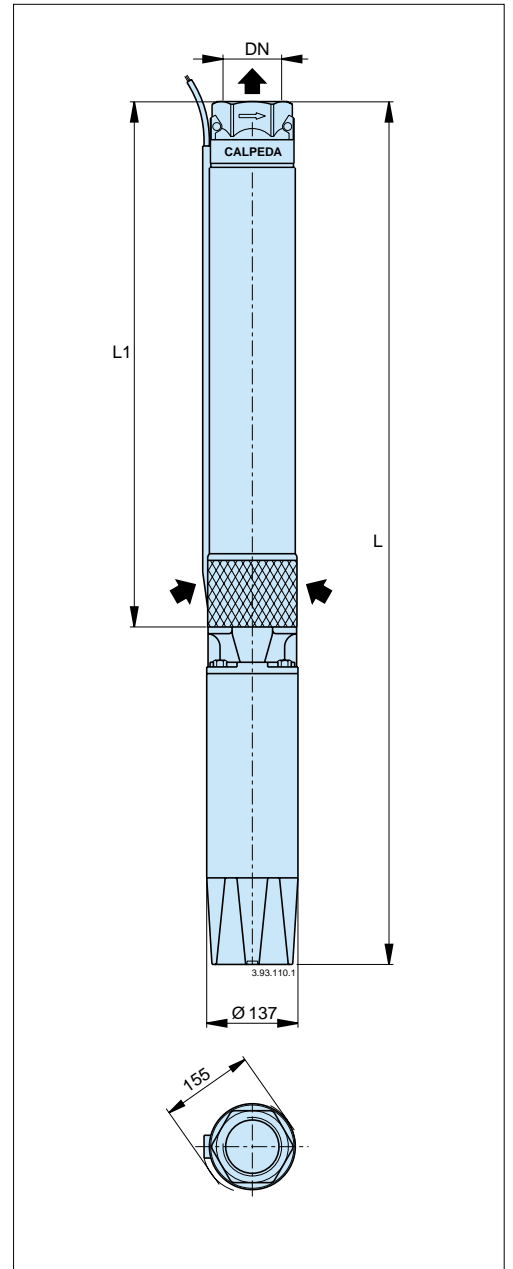
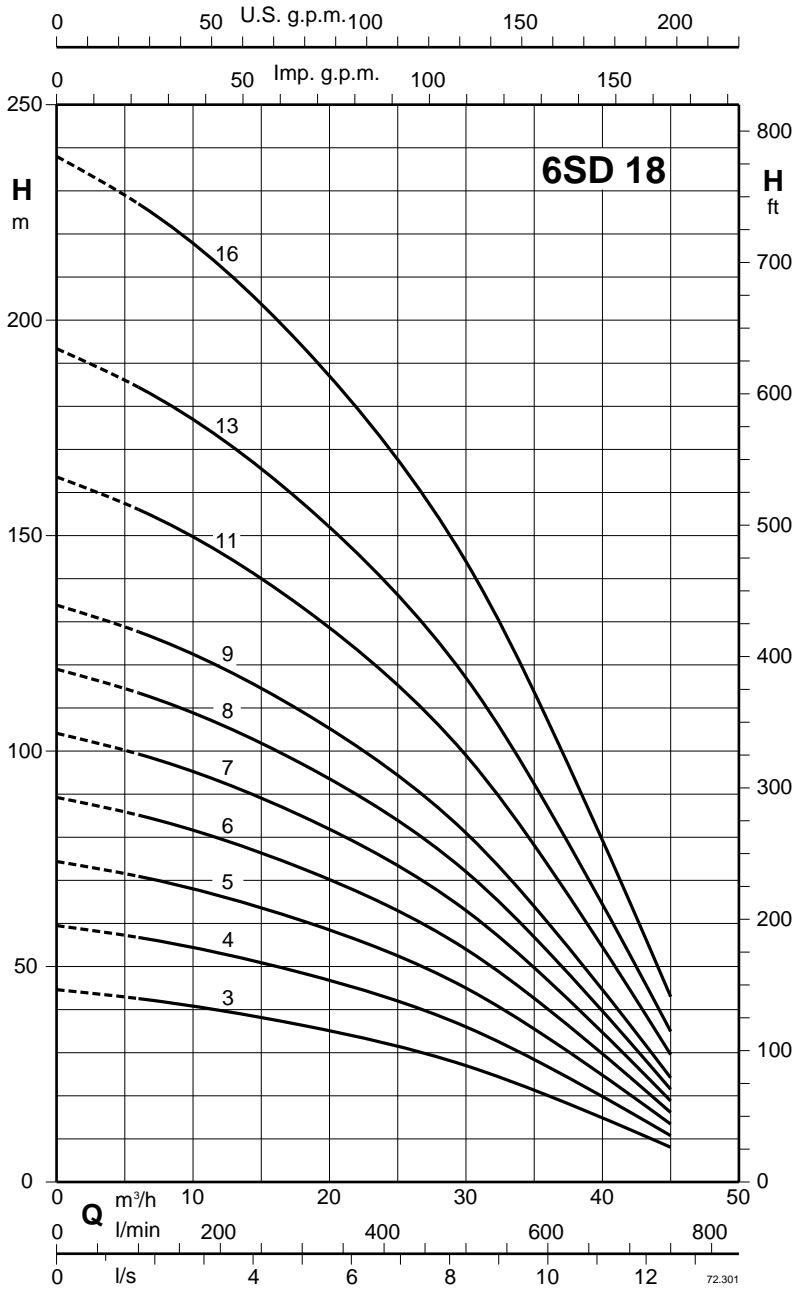
Characteristic curves, performance $n \approx 2900$ rpm, dimensions and weights



3 ~	400 V (380-415) 50 Hz	P ₂		Q	$n \approx 2900$ rpm											
					m ³ /h											
					3	6	9	12	15	18	21	24	27	30	33	36
	A	kW	HP		50	100	150	200	250	300	350	400	450	500	550	600
6SD 15/3	9,3	4	5,5	H m	38,5	38	37,5	37	36	34	31	28	24	19	14	8
6SD 15/5	12,5	5,5	7,5		64	63,5	63	62	59,5	56	52	46,5	39,5	31	23	12,5
6SD 15/6	16	7,5	10		77	76	75	74	71	68	62	56	47	37	27	15
6SD 15/8	20,7	9,3	12,5		103	102	101	99	95	90	83	74	63	50	37	20
6SD 15/9	23,3	11	15		115	114	113	111	107	101	93	83	71	56	41	23
6SD 15/11	31,3	15	20		141	140	139	136	131	124	114	102	87	69	50	28
6SD 15/13	31,3	15	20		166	165	164	161	155	147	135	121	103	81	60	33
6SD 15/16	38,5	18,5	25		205	203	202	198	191	180	166	148	127	100	74	40
6SD 15/19	45,3	22	30		243	241	240	236	226	214	198	176	150	119	87	48
6SD 15/25	63,5	30	40		320	318	316	310	298	282	260	232	198	156	115	63

DN	L	L1	
	mm	mm	kg
G 3 ISO 228	1114	532	55
	1252	637	59
	1337	691	63,5
	1475	797	68,2
	1561	850	71,5
	1732	956	81
	1837	1062	83
	2062	1220	91,5
	2363	1457	104
	2810	1774	126

Characteristic curves, performance $n \approx 2900$ rpm, dimensions and weights



3 ~	400 V (380-415) 50 Hz	P ₂		Q	n ≈ 2900 rpm											
					m³/h											
					6	12	18	24	30	36	42	45				
	A	kW	HP		100	200	300	400	500	600	700	750				
				H	42	39	36	32	27	20	12	8				
6SD 18/3	9,3	4	5,5	m	56	53	48	43	36	27	16	11				
6SD 18/4	12,5	5,5	7,5		70	66	60	53	45	34	21	13				
6SD 18/5	16	7,5	10		85	79	72	64	54	40	25	16				
6SD 18/6	20,7	9,3	12,5		100	93	84	75	63	46	28	19				
6SD 18/7	20,7	9,3	12,5		113	105	96	86	72	54	32	21				
6SD 18/8	23,3	11	15		127	119	108	96	81	60	37	24				
6SD 18/9	31,3	15	20		156	145	132	118	99	74	45	30				
6SD 18/11	31,3	15	20		184	172	157	139	117	87	52	35				
6SD 18/13	38,5	18,5	25		227	213	194	172	144	107	65	43				
6SD 18/16	45,3	22	30													

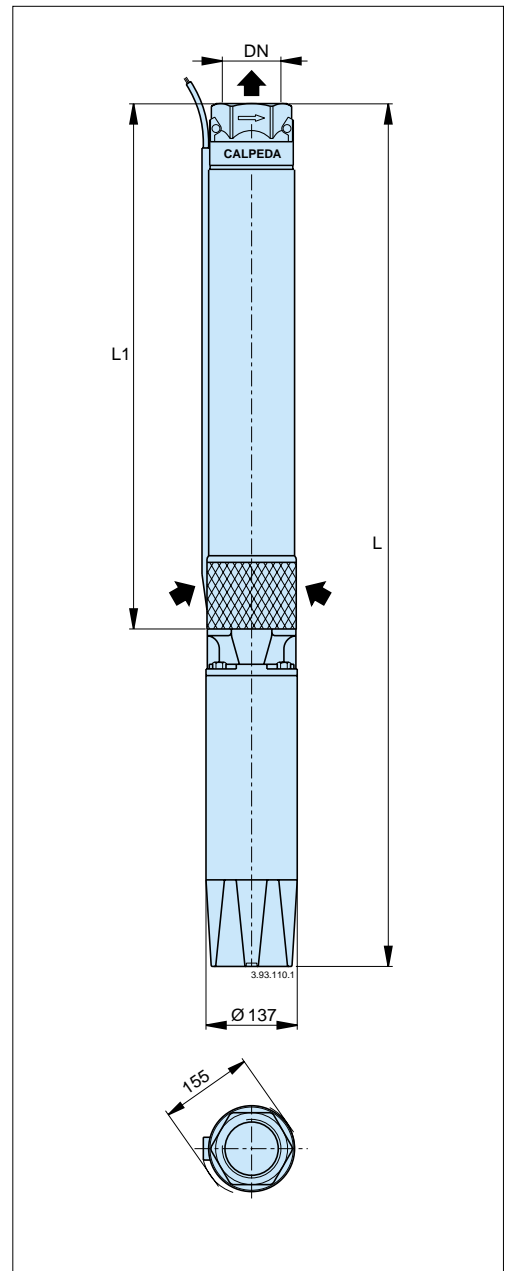
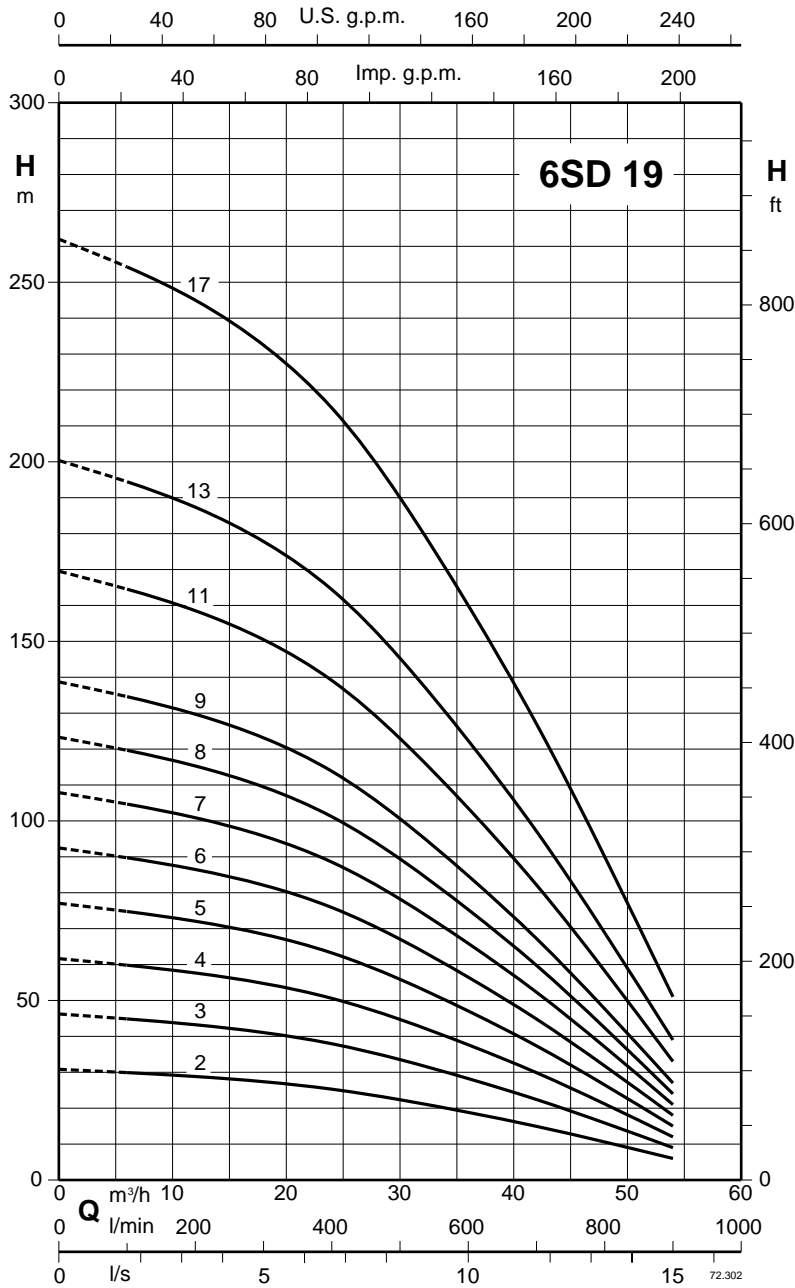
DN	L	L1	
	mm	mm	kg
G 3 ISO 228	1228	647	59
	1370	756	63,4
	1511	865	69
	1653	974	73,7
	1762	1083	76,2
	1903	1192	81
	2077	1301	91
	2295	1519	96
	2578	1737	105
	2970	2064	119

P₂ Rated motor power output

H Total head in m

Tolerances according to ISO 9906, annex A

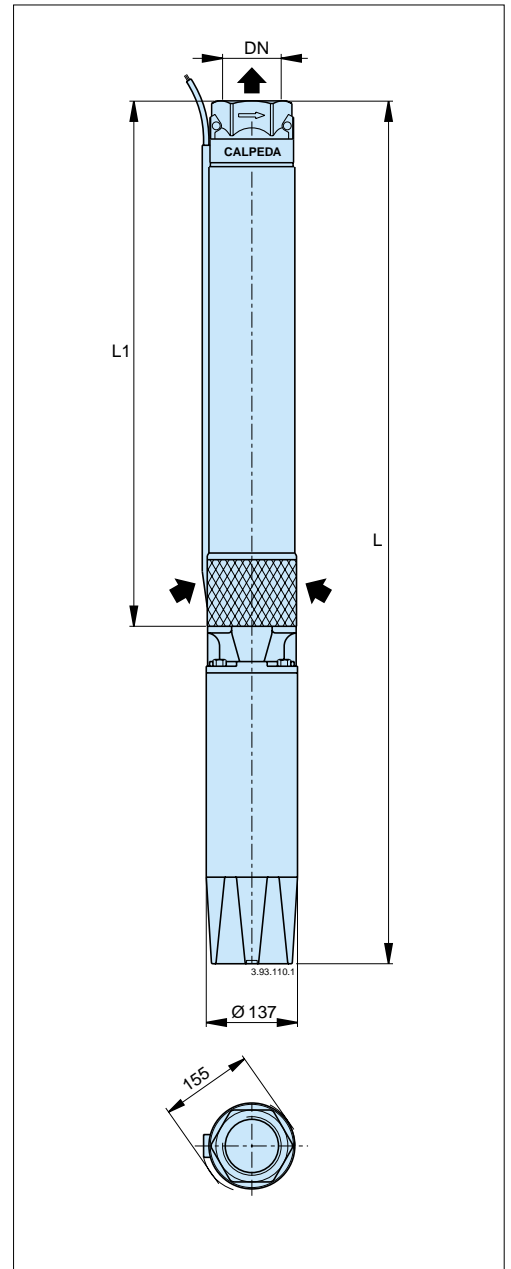
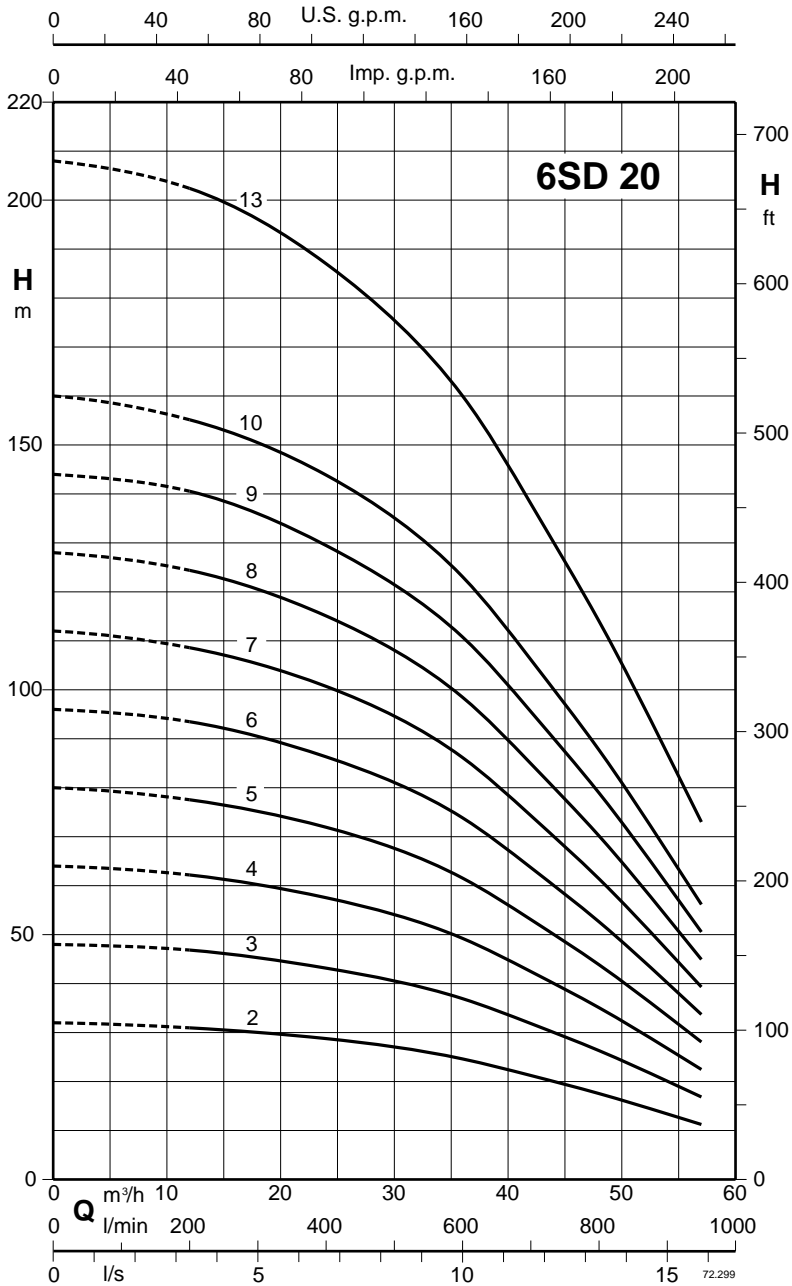
Characteristic curves, performance $n \approx 2900$ rpm, dimensions and weights



3 ~	400 V (380-415) 50 Hz	P ₂		Q	n ≈ 2900 rpm											
					m³/h											
					6	12	18	24	30	36	42	48	54			
A	kW	HP	H m	100	200	300	400	500	600	700	800	900				
6SD 19/2	9,3	4		5,5	30	29	27	25	22	19	15	10	6			
6SD 19/3	12,5	5,5		7,5	45	43	41	38	33	29	23	15	9			
6SD 19/4	16	7,5		10	60	57	55	50	45	38	30	21	12			
6SD 19/5	20,7	9,3		12,5	75	72	69	63	56	47	38	26	15			
6SD 19/6	23,3	11		15	90	86	82	75	67	56	45	31	18			
6SD 19/7	31,3	15		20	105	100	96	88	79	66	53	37	21			
6SD 19/8	31,3	15		20	120	115	110	101	89	75	60	42	24			
6SD 19/9	31,3	15		20	135	130	123	114	100	85	68	47	27			
6SD 19/11	38,5	18,5		25	165	158	151	139	123	104	83	58	33			
6SD 19/13	45,3	22		30	195	188	179	164	145	122	98	69	39			
6SD 19/17	63,5	30		40	255	245	234	215	190	160	127	90	51			

DN	L	L1	
	mm	mm	kg
G 3 ISO 228	1119	538	56,5
	1261	647	61
	1402	756	67
	1543	865	71,7
	1685	974	76
	1860	1083	86
	1968	1192	88,5
	2077	1301	91
	2360	1519	101
	2643	1737	112
3209	2173	137	

Characteristic curves, performance $n \approx 2900$ rpm, dimensions and weights



3 ~	400 V (380-415) 50 Hz	P ₂		Q	$n \approx 2900$ rpm												
					m ³ /h												
					12	18	24	30	36	42	48	54	57				
	A	kW	HP		H												
					m												
					l/min	200	300	400	500	600	700	800	900	950			
6SD 20/2	12,5	5,5	7,5		31	30	29	28	24	21	17	13	11				
6SD 20/3	16	7,5	10		46	45	44	42	37	32	26	20	17				
6SD 20/4	20,7	9,3	12,5		62	60	58	55	49	42	35	26	22				
6SD 20/5	23,3	11	15		77	76	73	68	61	53	44	33	28				
6SD 20/6	31,3	15	20		93	91	87	83	73	63	53	40	34				
6SD 20/7	31,3	15	20		108	106	102	96	86	74	61	47	39				
6SD 20/8	38,5	18,5	25		124	120	115	110	99	85	70	53	45				
6SD 20/9	38,5	18,5	25		140	136	130	124	111	96	79	60	51				
6SD 20/10	45,3	22	30		155	151	144	138	123	106	88	67	56				
6SD 20/13	63,5	30	40		202	196	188	179	160	138	114	87	73				

DN	L	L1	
	mm	mm	kg
G 3 ISO 228	1152	538	58,4
	1293	647	64,5
	1435	756	69,7
	1575	865	74
	1750	974	83,5
	1859	1083	86
	2033	1192	94
	2142	1301	96,5
	2315	1410	105
	2773	1737	129